

R E M A R K S

Claims 4, 10, 13 and 17 have been amended. Claims 1-3, 5-9, 11-12, 14-16 and 18-25 stand as originally filed.

Claims 1-25 were considered in the Office Action. Claims 4 and 13 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for reciting an 802.1x login packet but failing to specify a type of message according to the IEEE 802.1x protocol in which login packets are sent. Claims 4 and 13 have been amended to recite a generic login packet.

Applicant believes that these claims, as amended, are clear and definite and satisfy the requirements of 35 U.S.C. 112, second paragraph.

Claims 1-25 stand rejected under 35 U.S.C. 102(e) as being anticipated by Droms et al., U.S. Patent 7,143,435.

Applicant believes that the currently pending claims are not anticipated by or obvious over the cited references for at least the reasons set forth below and respectfully requests reconsideration.

The Invention of Claim 1

The cited references do not disclose or suggest:

"A method of **developing an access control list**, comprising:

developing an enhanced access control list including data related to at least one of user names, DNS names, Windows domain names, and physical addresses;

converting at least one of,

user names into corresponding IP and physical addresses according to data in the enhanced access control list;

DNS names into corresponding IP addresses **according to data in the enhanced access control list;** and

physical addresses into IP addresses according to data in the enhanced access control list; and

5 **developing the access control list from each of the operations of converting."**

(Claim 1, emphasis added)

At least the above highlighted features are not anticipated or suggested by the cited references and would not
10 have been obvious to a person with ordinary skill in the art having the cited references. Droms is not directed to a method of developing an access control list. Droms discloses a gateway with a standard access control list and a DHCPv6 server that stores information about auto-configured IPv6
15 addresses. (See, e.g., col. 8, line 44 - col. 9, line 27) For example:

"According to the illustrated embodiment, the DHCPv6 server 113 registers auto-configured IPv6 addresses in response to DHCP information request (INFORM) messages.
20 The DHCPv6 server 113 performs the registration by storing a data structure herein called a map 114. Map 114 associates an IPv6 address supplied in the INFORM message by the host with authentication or authorization information, or both, supplied in the INFORM message by a
25 DHCPv6 relay agent in an intermediate device connected to the host. Conventional DHCP does not require or suggest that the DHCPv6 server 113 obtain authentication or authorization information from a DHCP relay agent. Conventional DHCP does not require or suggest that the
30 DHCPv6 server 113 store or use the map 114.

In addition, in some embodiments, the DHCPv6 server 113 also stores one or more data structures that associate other configuration information with authentication or authorization information, or both."

35 (Droms col. 8, lines 49-66, emphasis added)

5 **"The gateway maintains an access control list 146 of IP**
 addresses in one or more data structures. Only a client
 operating on a host having an IP address included in the
 access control list 146 is allowed by the gateway 145 to
10 **exchange data packets over the Internet 150. If a request**
 to access the Internet comes from a host with an address
 unknown to the gateway 145, the gateway 145 may request
 user identification information associated with that
 address from the DHCP server host 112 based on
15 **information in the map 114. The gateway 145 also may**
 obtain authorization information such as an access
 control list from the AAA server 132. The gateway 145 is
 one example of a network server in which the service
 provided depends on registering an auto-configured
 logical network address."

(Droms col. 9, lines 14-27)

Droms' gateway 145, which contains an access control list
146, relies on the registration of auto-registered IPv6
addresses in the DHCPv6 server 113 when a request is received
20 by the gateway 145 from a host with an address not on the list
of IP addresses in the access control list 146. Thus, Droms
includes a traditional access control list containing IP
addresses, but does not disclose an enhanced control list.
There is no suggestion in Droms that an enhanced access
25 control list is generated containing more information than a
list of IP addresses. Rather, Droms discloses a standard
access control list in a gateway and a data structure
containing additional information in a separate DHCPv6 server.
If Droms disclosed an enhanced control list, there would be no
30 need for the gateway 145 to query the DHCPv6 server when an
unknown IP address is detected. It is noted that DHCP servers
typically do not control network access and do not contain
access control lists, they merely assign network parameters
such as IP addresses to other devices on the network. They
35 are typically not used for security. Similarly, the data
structure or map contained in Droms' DHCPv6 server is not an

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access control list or an enhanced control list. It does not contain a list of all devices authorized to access a network, and is not used to control access. Furthermore, Droms does not disclose what information about auto-registered IPv6 addresses is registered by the DHCPv6 server, specifying only "authentication or authorization information". (See, e.g., col. 8, line 55) Droms therefore does not disclose converting user names and physical addresses into IP addresses, particularly according to data in an enhanced access control list.

Applicant therefore believes that claim 1 is allowable over the cited references at least because Droms does not disclose an enhanced access control list, and converting information from the enhanced access control list to develop an access control list. Applicant respectfully requests reconsideration.

Dependent claims 2-8 depend ultimately upon independent claim 1 which is allowable over the cited art as discussed above. These dependent claims are likewise in condition for allowance at least because they depend on an allowable independent claim. However, dependent claims 2-8 are independently allowable at least in that they recite particular features which, when combined with the elements of the independent claim, are also not disclosed or suggested in the cited references.

The Invention of Claim 9

The cited references do not disclose or suggest:

"A method of controlling access of a user to a network including a plurality of hosts coupled together through a network switch, the method comprising:

storing in the network switch an enhanced access control list containing data related to at least one of user names, DNS names, Windows domain names, and physical addresses; and generating a dynamic access control list from the enhanced access control list, the dynamic access control list containing a plurality of IP addresses that restrict access of the user to the network."

(Claim 9, emphasis added)

Applicant repeats the arguments for allowability set forth above with respect to claim 1, but specifically directed to the method set forth in claim 9. Droms does not disclose or suggest storing an enhanced access control list in a network switch. Droms' gateway contains a conventional access control list as discussed above, which relies on queries to a DHCPv6 server to handle queries from hosts with IP addresses not in the access control list. Droms' switch 102 does contain an authenticator 105 that stores "authentication and authorization data". The content of this information is unspecified except to indicate that it includes a user class. (See, e.g., col. 14, lines 43 and 67). The switch 102 does not contain an enhanced access control list from which a dynamic access control list is generated. Rather, the authenticator and a DHCP relay process in Droms' switch 102 communicate with an external authentication server (AAA server) in order to configure a DHCP server external to the switch 102. (See claim 29)

Dependent claims 10-17 depend upon independent claim 9 which is allowable over the cited art as discussed above. These dependent claims are likewise in condition for allowance at least because they depend on an allowable independent claim. However, dependent claims 10-17 are independently allowable at least in that they recite particular features

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which, when combined with the elements of the independent claim, are also not disclosed or suggested in the cited references.

The Invention of Claim 18

5 The cited references do not disclose or suggest:

"A network switching circuit, comprising:

a forwarding circuit operable to detect specific received packets and to provide the specific packets on a processor port, and further operable to receive packets on one of a plurality of ports including the processor port and to forward each received packet to a port corresponding to a destination address contained in the packet **subject to access restrictions contained in a dynamic access control list;**

15 a memory circuit coupled to the forwarding circuit, the memory circuit operable to store packets and **operable to store an enhanced access control list and a dynamic access control list;** and

20 a processor coupled to the forwarding circuit and to the memory circuit, the processor operable to define the specific packets detected by the forwarding circuit and **operable to process the specific packets stored in the memory circuit using the enhanced access control list to generate the dynamic access control list and store the dynamic access control list in the memory circuit,** and further operable to provide the specific packets to the processor port of the forwarding circuit after processing the packets."

(Claim 18, emphasis added)

Applicant repeats the arguments for allowability set forth above with respect to claim 1, but specifically directed

to the network switching circuit set forth in claim 18. Droms does not disclose or suggest a network switching circuit that forwards packets based on access restrictions in a dynamic access control list. Droms also does not disclose or suggest a memory circuit in a network switching circuit that stores an enhanced access control list and a dynamic access control list. Droms also does not disclose or suggest a processor in a network switching circuit that processes packets using an enhanced access control list in the switching circuit to generate a dynamic access control list.

Dependent claims 19-21 depend upon independent claim 18 which is allowable over the cited art as discussed above. These dependent claims are likewise in condition for allowance at least because they depend on an allowable independent claim. However, dependent claims 19-21 are independently allowable at least in that they recite particular features which, when combined with the elements of the independent claim, are also not disclosed or suggested in the cited references.

The Invention of Claim 22

The cited references do not disclose or suggest:

"A computer network, comprising:

a network switch, including,

a forwarding circuit operable to detect specific received packets and to provide the specific packets on a processor port, and further operable to receive packets on one of a plurality of ports including the processor port and to forward each received packet to a port corresponding to a destination address contained in the packet **subject to access restrictions contained in a**

dynamic access control list;

a memory circuit coupled to the forwarding circuit,
the memory circuit **operable to store packets and operable
to store an enhanced access control list and a dynamic
access control list;** and

a processor coupled to the forwarding circuit and to
the memory circuit, the processor operable to define the
specific packets detected by the forwarding circuit and
**operable to process the specific packets stored in the
memory circuit using the enhanced access control list to
generate the dynamic access control list and store the
dynamic access control list in the memory circuit,** and
further operable to provide the specific packets to the
processor port of the forwarding circuit after processing
the packets; and

a plurality of hosts, each host coupled to a respective
port of the network switch."

(Claim 22, emphasis added)

Applicant repeats the arguments for allowability set
forth above with respect to claim 1, but specifically directed
to the computer network set forth in claim 22. Droms does not
disclose or suggest a network switch that forwards packets
based on access restrictions in a dynamic access control list.
Droms also does not disclose or suggest a memory circuit in a
network switch that stores an enhanced access control list and
a dynamic access control list. Droms also does not disclose
or suggest a processor in a network switch that processes
packets using an enhanced access control list in the switching
circuit to generate a dynamic access control list.

Dependent claims 23-25 depend upon independent claim 22
which is allowable over the cited art as discussed above.
These dependent claims are likewise in condition for allowance

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at least because they depend on an allowable independent claim. However, dependent claims 23-25 are independently allowable at least in that they recite particular features which, when combined with the elements of the independent claim, are also not disclosed or suggested in the cited references.

In view of the above, all of the claims are believed to be in condition for allowance, and the Applicants respectfully request that a timely Notice of Allowance be issued.

Respectfully submitted,
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